

Release notes for ENDF/B Development n-016\_S\_033  
evaluation

**ENDF**  
**B-VII**.dev

April 26, 2017

- checkr Warnings:

1. A previous error halted parsing of the current section  
*MAT=1628, MF= 1, MT=451 (1): Parsing stopped*

```
ERROR(S) FOUND IN MAT=1628, MF= 1, MT=451
SECTION CANNOT BE CHECKED FROM SEQUENCE NUMBER 157 TO 227
```

- checkr Errors:

1. A variable is outside the allowed ENDF range  
*MAT=1628, MF= 1, MT=451 (0): Variable range*

```
ERROR(S) FOUND IN MAT=1628, MF= 1, MT=451
MOD = 3 OUT OF RANGE 0 - 0 RECORD NUMBER 157
```

2. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 2, MT=151 (0): Directory (b)*

```
ERROR(S) FOUND IN MAT=1628, MF= 2, MT=151
SECTION 2/151 NOT IN DIRECTORY RECORD NUMBER 229
```

3. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 3, MT= 1 (0): Directory (b)*

```
ERROR(S) FOUND IN MAT=1628, MF= 3, MT= 1
SECTION 3/ 1 NOT IN DIRECTORY RECORD NUMBER 245
```

4. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 3, MT= 2 (0): Directory (b)*

```
ERROR(S) FOUND IN MAT=1628, MF= 3, MT= 2
SECTION 3/ 2 NOT IN DIRECTORY RECORD NUMBER 270
```

5. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 3, MT= 4 (0): Directory (b)*

```
ERROR(S) FOUND IN MAT=1628, MF= 3, MT= 4
SECTION 3/ 4 NOT IN DIRECTORY RECORD NUMBER 295
```

6. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 3, MT= 16 (0): Directory (b)*

```
ERROR(S) FOUND IN MAT=1628, MF= 3, MT= 16
SECTION 3/ 16 NOT IN DIRECTORY RECORD NUMBER 310
```

7. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 3, MT= 22 (0): Directory (b)*

ERROR(S) FOUND IN MAT=1628, MF= 3, MT= 22  
SECTION 3/ 22 NOT IN DIRECTORY RECORD NUMBER 317

8. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 3, MT= 28 (0): Directory (b)*

ERROR(S) FOUND IN MAT=1628, MF= 3, MT= 28  
SECTION 3/ 28 NOT IN DIRECTORY RECORD NUMBER 324

9. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 3, MT= 51 (0): Directory (b)*

ERROR(S) FOUND IN MAT=1628, MF= 3, MT= 51  
SECTION 3/ 51 NOT IN DIRECTORY RECORD NUMBER 331

10. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 3, MT= 52 (0): Directory (b)*

ERROR(S) FOUND IN MAT=1628, MF= 3, MT= 52  
SECTION 3/ 52 NOT IN DIRECTORY RECORD NUMBER 346

11. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 3, MT= 53 (0): Directory (b)*

ERROR(S) FOUND IN MAT=1628, MF= 3, MT= 53  
SECTION 3/ 53 NOT IN DIRECTORY RECORD NUMBER 359

12. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 3, MT= 54 (0): Directory (b)*

ERROR(S) FOUND IN MAT=1628, MF= 3, MT= 54  
SECTION 3/ 54 NOT IN DIRECTORY RECORD NUMBER 372

13. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 3, MT= 55 (0): Directory (b)*

ERROR(S) FOUND IN MAT=1628, MF= 3, MT= 55  
SECTION 3/ 55 NOT IN DIRECTORY RECORD NUMBER 384

14. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 3, MT= 56 (0): Directory (b)*

ERROR(S) FOUND IN MAT=1628, MF= 3, MT= 56  
SECTION 3/ 56 NOT IN DIRECTORY RECORD NUMBER 396

15. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 3, MT= 57 (0): Directory (b)*

- |   |               |     |
|---|---------------|-----|
| ERROR(S) FOUND IN MAT=1628, MF= 3, MT= 57 | RECORD NUMBER | 407 |
| SECTION 3/ 57 NOT IN DIRECTORY            |               |     |
16. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 3, MT= 91 (0): Directory (b)*
- |   |               |     |
|---|---------------|-----|
| ERROR(S) FOUND IN MAT=1628, MF= 3, MT= 91 | RECORD NUMBER | 418 |
| SECTION 3/ 91 NOT IN DIRECTORY            |               |     |
17. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 3, MT=102 (0): Directory (b)*
- |   |               |     |
|---|---------------|-----|
| ERROR(S) FOUND IN MAT=1628, MF= 3, MT=102 | RECORD NUMBER | 429 |
| SECTION 3/102 NOT IN DIRECTORY            |               |     |
18. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 3, MT=103 (0): Directory (b)*
- |   |               |     |
|---|---------------|-----|
| ERROR(S) FOUND IN MAT=1628, MF= 3, MT=103 | RECORD NUMBER | 446 |
| SECTION 3/103 NOT IN DIRECTORY            |               |     |
19. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 3, MT=107 (0): Directory (b)*
- |   |               |     |
|---|---------------|-----|
| ERROR(S) FOUND IN MAT=1628, MF= 3, MT=107 | RECORD NUMBER | 460 |
| SECTION 3/107 NOT IN DIRECTORY            |               |     |
20. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 4, MT= 2 (0): Directory (b)*
- |  |               |     |
|--|---------------|-----|
| ERROR(S) FOUND IN MAT=1628, MF= 4, MT= 2 | RECORD NUMBER | 475 |
| SECTION 4/ 2 NOT IN DIRECTORY            |               |     |
21. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 4, MT= 16 (0): Directory (b)*
- |   |               |     |
|---|---------------|-----|
| ERROR(S) FOUND IN MAT=1628, MF= 4, MT= 16 | RECORD NUMBER | 627 |
| SECTION 4/ 16 NOT IN DIRECTORY            |               |     |
22. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 4, MT= 22 (0): Directory (b)*
- |   |               |     |
|---|---------------|-----|
| ERROR(S) FOUND IN MAT=1628, MF= 4, MT= 22 | RECORD NUMBER | 630 |
| SECTION 4/ 22 NOT IN DIRECTORY            |               |     |
23. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 4, MT= 28 (0): Directory (b)*

- |  |   |                   |
|--|---|-------------------|
|  | ERROR(S) FOUND IN MAT=1628, MF= 4, MT= 28 |                   |
|  | SECTION 4/ 28 NOT IN DIRECTORY            | RECORD NUMBER 633 |
24. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 4, MT= 51 (0): Directory (b)*
- |  |   |                   |
|--|---|-------------------|
|  | ERROR(S) FOUND IN MAT=1628, MF= 4, MT= 51 |                   |
|  | SECTION 4/ 51 NOT IN DIRECTORY            | RECORD NUMBER 636 |
25. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 4, MT= 52 (0): Directory (b)*
- |  |   |                   |
|--|---|-------------------|
|  | ERROR(S) FOUND IN MAT=1628, MF= 4, MT= 52 |                   |
|  | SECTION 4/ 52 NOT IN DIRECTORY            | RECORD NUMBER 685 |
26. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 4, MT= 53 (0): Directory (b)*
- |  |   |                   |
|--|---|-------------------|
|  | ERROR(S) FOUND IN MAT=1628, MF= 4, MT= 53 |                   |
|  | SECTION 4/ 53 NOT IN DIRECTORY            | RECORD NUMBER 727 |
27. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 4, MT= 54 (0): Directory (b)*
- |  |   |                   |
|--|---|-------------------|
|  | ERROR(S) FOUND IN MAT=1628, MF= 4, MT= 54 |                   |
|  | SECTION 4/ 54 NOT IN DIRECTORY            | RECORD NUMBER 769 |
28. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 4, MT= 55 (0): Directory (b)*
- |  |   |                   |
|--|---|-------------------|
|  | ERROR(S) FOUND IN MAT=1628, MF= 4, MT= 55 |                   |
|  | SECTION 4/ 55 NOT IN DIRECTORY            | RECORD NUMBER 811 |
29. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 4, MT= 56 (0): Directory (b)*
- |  |   |                   |
|--|---|-------------------|
|  | ERROR(S) FOUND IN MAT=1628, MF= 4, MT= 56 |                   |
|  | SECTION 4/ 56 NOT IN DIRECTORY            | RECORD NUMBER 852 |
30. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 4, MT= 57 (0): Directory (b)*
- |  |   |                   |
|--|---|-------------------|
|  | ERROR(S) FOUND IN MAT=1628, MF= 4, MT= 57 |                   |
|  | SECTION 4/ 57 NOT IN DIRECTORY            | RECORD NUMBER 893 |
31. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 4, MT= 91 (0): Directory (b)*

- ERROR(S) FOUND IN MAT=1628, MF= 4, MT= 91  
SECTION 4/ 91 NOT IN DIRECTORY RECORD NUMBER 933
32. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 5, MT= 16 (0): Directory (b)*
- ERROR(S) FOUND IN MAT=1628, MF= 5, MT= 16  
SECTION 5/ 16 NOT IN DIRECTORY RECORD NUMBER 969
33. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 5, MT= 22 (0): Directory (b)*
- ERROR(S) FOUND IN MAT=1628, MF= 5, MT= 22  
SECTION 5/ 22 NOT IN DIRECTORY RECORD NUMBER 1094
34. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 5, MT= 28 (0): Directory (b)*
- ERROR(S) FOUND IN MAT=1628, MF= 5, MT= 28  
SECTION 5/ 28 NOT IN DIRECTORY RECORD NUMBER 1235
35. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF= 5, MT= 91 (0): Directory (b)*
- ERROR(S) FOUND IN MAT=1628, MF= 5, MT= 91  
SECTION 5/ 91 NOT IN DIRECTORY RECORD NUMBER 1355
36. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF=12, MT= 16 (0): Directory (b)*
- ERROR(S) FOUND IN MAT=1628, MF=12, MT= 16  
SECTION 12/ 16 NOT IN DIRECTORY RECORD NUMBER 1548
37. Missing a gamma spectrum for continuum of gammas  
*MAT=1628, MF=12, MT= 16 (1): No gamma spectrum*
- ERROR(S) FOUND IN MAT=1628, MF=12, MT= 16  
CONTINUUM PHOTONS REQUIRE A SECTION IN MF=15
38. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF=12, MT= 22 (0): Directory (b)*
- ERROR(S) FOUND IN MAT=1628, MF=12, MT= 22  
SECTION 12/ 22 NOT IN DIRECTORY RECORD NUMBER 1556
39. Missing a gamma spectrum for continuum of gammas  
*MAT=1628, MF=12, MT= 22 (1): No gamma spectrum*
- ERROR(S) FOUND IN MAT=1628, MF=12, MT= 22  
CONTINUUM PHOTONS REQUIRE A SECTION IN MF=15

40. Missing a section in directory so your directory is messed up. This error will break everything else

*MAT=1628, MF=12, MT= 28 (0): Directory (b)*

ERROR(S) FOUND IN MAT=1628, MF=12, MT= 28  
SECTION 12/ 28 NOT IN DIRECTORY RECORD NUMBER 1564

41. Missing a gamma spectrum for continuum of gammas  
*MAT=1628, MF=12, MT= 28 (1): No gamma spectrum*

ERROR(S) FOUND IN MAT=1628, MF=12, MT= 28  
CONTINUUM PHOTONS REQUIRE A SECTION IN MF=15

42. Missing a section in directory so your directory is messed up. This error will break everything else

*MAT=1628, MF=12, MT= 51 (0): Directory (b)*

ERROR(S) FOUND IN MAT=1628, MF=12, MT= 51  
SECTION 12/ 51 NOT IN DIRECTORY RECORD NUMBER 1572

43. Missing a section in directory so your directory is messed up. This error will break everything else

*MAT=1628, MF=12, MT= 52 (0): Directory (b)*

ERROR(S) FOUND IN MAT=1628, MF=12, MT= 52  
SECTION 12/ 52 NOT IN DIRECTORY RECORD NUMBER 1576

44. Missing a section in directory so your directory is messed up. This error will break everything else

*MAT=1628, MF=12, MT= 53 (0): Directory (b)*

ERROR(S) FOUND IN MAT=1628, MF=12, MT= 53  
SECTION 12/ 53 NOT IN DIRECTORY RECORD NUMBER 1580

45. Missing a section in directory so your directory is messed up. This error will break everything else

*MAT=1628, MF=12, MT= 54 (0): Directory (b)*

ERROR(S) FOUND IN MAT=1628, MF=12, MT= 54  
SECTION 12/ 54 NOT IN DIRECTORY RECORD NUMBER 1585

46. Missing a section in directory so your directory is messed up. This error will break everything else

*MAT=1628, MF=12, MT= 55 (0): Directory (b)*

ERROR(S) FOUND IN MAT=1628, MF=12, MT= 55  
SECTION 12/ 55 NOT IN DIRECTORY RECORD NUMBER 1590

47. Missing a section in directory so your directory is messed up. This error will break everything else

*MAT=1628, MF=12, MT= 56 (0): Directory (b)*

ERROR(S) FOUND IN MAT=1628, MF=12, MT= 56  
SECTION 12/ 56 NOT IN DIRECTORY RECORD NUMBER 1595

48. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF=12, MT= 57 (0): Directory (b)*
- ERROR(S) FOUND IN MAT=1628, MF=12, MT= 57  
SECTION 12/ 57 NOT IN DIRECTORY RECORD NUMBER 1600
49. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF=12, MT= 91 (0): Directory (b)*
- ERROR(S) FOUND IN MAT=1628, MF=12, MT= 91  
SECTION 12/ 91 NOT IN DIRECTORY RECORD NUMBER 1607
50. Missing a gamma spectrum for continuum of gammas  
*MAT=1628, MF=12, MT= 91 (1): No gamma spectrum*
- ERROR(S) FOUND IN MAT=1628, MF=12, MT= 91  
CONTINUUM PHOTONS REQUIRE A SECTION IN MF=15
51. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF=12, MT=102 (0): Directory (b)*
- ERROR(S) FOUND IN MAT=1628, MF=12, MT=102  
SECTION 12/102 NOT IN DIRECTORY RECORD NUMBER 1617
52. Missing a gamma spectrum for continuum of gammas  
*MAT=1628, MF=12, MT=102 (1): No gamma spectrum*
- ERROR(S) FOUND IN MAT=1628, MF=12, MT=102  
CONTINUUM PHOTONS REQUIRE A SECTION IN MF=15
53. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF=12, MT=103 (0): Directory (b)*
- ERROR(S) FOUND IN MAT=1628, MF=12, MT=103  
SECTION 12/103 NOT IN DIRECTORY RECORD NUMBER 1631
54. Missing a gamma spectrum for continuum of gammas  
*MAT=1628, MF=12, MT=103 (1): No gamma spectrum*
- ERROR(S) FOUND IN MAT=1628, MF=12, MT=103  
CONTINUUM PHOTONS REQUIRE A SECTION IN MF=15
55. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF=12, MT=107 (0): Directory (b)*
- ERROR(S) FOUND IN MAT=1628, MF=12, MT=107  
SECTION 12/107 NOT IN DIRECTORY RECORD NUMBER 1644
56. Missing a gamma spectrum for continuum of gammas  
*MAT=1628, MF=12, MT=107 (1): No gamma spectrum*



ERROR(S) FOUND IN MAT=1628, MF=12, MT=107  
CONTINUUM PHOTONS REQUIRE A SECTION IN MF=15

57. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF=14, MT= 16 (0): Directory (b)*

ERROR(S) FOUND IN MAT=1628, MF=14, MT= 16  
SECTION 14/ 16 NOT IN DIRECTORY RECORD NUMBER 1657

58. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF=14, MT= 22 (0): Directory (b)*

ERROR(S) FOUND IN MAT=1628, MF=14, MT= 22  
SECTION 14/ 22 NOT IN DIRECTORY RECORD NUMBER 1659

59. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF=14, MT= 28 (0): Directory (b)*

ERROR(S) FOUND IN MAT=1628, MF=14, MT= 28  
SECTION 14/ 28 NOT IN DIRECTORY RECORD NUMBER 1661

60. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF=14, MT= 51 (0): Directory (b)*

ERROR(S) FOUND IN MAT=1628, MF=14, MT= 51  
SECTION 14/ 51 NOT IN DIRECTORY RECORD NUMBER 1663

61. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF=14, MT= 52 (0): Directory (b)*

ERROR(S) FOUND IN MAT=1628, MF=14, MT= 52  
SECTION 14/ 52 NOT IN DIRECTORY RECORD NUMBER 1665

62. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF=14, MT= 53 (0): Directory (b)*

ERROR(S) FOUND IN MAT=1628, MF=14, MT= 53  
SECTION 14/ 53 NOT IN DIRECTORY RECORD NUMBER 1667

63. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF=14, MT= 54 (0): Directory (b)*

ERROR(S) FOUND IN MAT=1628, MF=14, MT= 54  
SECTION 14/ 54 NOT IN DIRECTORY RECORD NUMBER 1669

64. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF=14, MT= 55 (0): Directory (b)*

- ERROR(S) FOUND IN MAT=1628, MF=14, MT= 55  
SECTION 14/ 55 NOT IN DIRECTORY RECORD NUMBER 1671
65. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF=14, MT= 56 (0): Directory (b)*
- ERROR(S) FOUND IN MAT=1628, MF=14, MT= 56  
SECTION 14/ 56 NOT IN DIRECTORY RECORD NUMBER 1673
66. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF=14, MT= 57 (0): Directory (b)*
- ERROR(S) FOUND IN MAT=1628, MF=14, MT= 57  
SECTION 14/ 57 NOT IN DIRECTORY RECORD NUMBER 1675
67. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF=14, MT= 91 (0): Directory (b)*
- ERROR(S) FOUND IN MAT=1628, MF=14, MT= 91  
SECTION 14/ 91 NOT IN DIRECTORY RECORD NUMBER 1677
68. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF=14, MT=102 (0): Directory (b)*
- ERROR(S) FOUND IN MAT=1628, MF=14, MT=102  
SECTION 14/102 NOT IN DIRECTORY RECORD NUMBER 1679
69. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF=14, MT=103 (0): Directory (b)*
- ERROR(S) FOUND IN MAT=1628, MF=14, MT=103  
SECTION 14/103 NOT IN DIRECTORY RECORD NUMBER 1681
70. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF=14, MT=107 (0): Directory (b)*
- ERROR(S) FOUND IN MAT=1628, MF=14, MT=107  
SECTION 14/107 NOT IN DIRECTORY RECORD NUMBER 1683
71. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF=15, MT= 16 (0): Directory (b)*
- ERROR(S) FOUND IN MAT=1628, MF=15, MT= 16  
SECTION 15/ 16 NOT IN DIRECTORY RECORD NUMBER 1686
72. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF=15, MT= 22 (0): Directory (b)*

ERROR(S) FOUND IN MAT=1628, MF=15, MT= 22  
SECTION 15/ 22 NOT IN DIRECTORY RECORD NUMBER 1793

73. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF=15, MT= 28 (0): Directory (b)*

ERROR(S) FOUND IN MAT=1628, MF=15, MT= 28  
SECTION 15/ 28 NOT IN DIRECTORY RECORD NUMBER 1907

74. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF=15, MT= 91 (0): Directory (b)*

ERROR(S) FOUND IN MAT=1628, MF=15, MT= 91  
SECTION 15/ 91 NOT IN DIRECTORY RECORD NUMBER 2008

75. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF=15, MT=102 (0): Directory (b)*

ERROR(S) FOUND IN MAT=1628, MF=15, MT=102  
SECTION 15/102 NOT IN DIRECTORY RECORD NUMBER 2314

76. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF=15, MT=103 (0): Directory (b)*

ERROR(S) FOUND IN MAT=1628, MF=15, MT=103  
SECTION 15/103 NOT IN DIRECTORY RECORD NUMBER 3113

77. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT=1628, MF=15, MT=107 (0): Directory (b)*

ERROR(S) FOUND IN MAT=1628, MF=15, MT=107  
SECTION 15/107 NOT IN DIRECTORY RECORD NUMBER 3453

• **psyche** Warnings:

1. Strength function in URR not in agreement with PSYCHE's expectations  
*FILE 2 / SECTION 151 / ISOTOPE MASS = 33. L = 0 / STRENGTH FUNCTION IS 1.90502E-05 / STRENGTH FUNCTION 1.90502E-05 / LIES OUTSIDE LIMITS 1.00000E-04 TO 9.00000E-04 (0): URR str. ftn.*

```
FILE 2
SECTION 151
ISOTOPE MASS = 33. L = 0
STRENGTH FUNCTION IS 1.90502E-05
STRENGTH FUNCTION 1.90502E-05
... [1 more lines]
```

2. Non-threshold reaction with Q value differing from PSYCHE's expectations  
*FILE 3 / SECTION 103 / THE CALCULATED Q 3.82047E+05 DISSAGREES WITH THE GIVEN Q 5.33469E+05 (0): Iffy Q*

FILE 3

SECTION 103

THE CALCULATED Q 3.82047E+05 DISSAGREES WITH THE GIVEN Q 5.33469E+05

• fudge-4.0 Warnings:

1. Missing a channel with a particular angular momenta combination  
*resonances / resolved / MultiLevelBreitWigner (Error # 0): missingResonanceChannel*

WARNING: Missing a channel with angular momenta combination L = 0, J = 0.0 and S = 0.0 for "capture"

2. Potential scattering hasn't converted, you need more L's!  
*resonances / resolved (Error # 1): potentialScatteringNotConverged*

WARNING: Potential scattering hasn't converged by L=0 at E=260000.0 eV, xs[0]/xs[0]=100.0% > 0.1%

3. Cross section does not match sum of linked reaction cross sections  
*crossSectionSum label 0: total (Error # 0): CS Sum.*

WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 0.18%

4. Cross section does not match sum of linked reaction cross sections  
*crossSectionSum label 1: (z,n) (Error # 0): CS Sum.*

WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 0.11%

• fudge-4.0 Errors:

1. Energy range of data set does not match cross section range  
*reaction label 8: n + (S33\_c -> S33 + gamma) / Product: S33\_c / Decay product: gamma / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (3710120.0 -> 20000000.0) vs (3710130.0 -> 20000000.0)

2. Energy range of data set does not match cross section range  
*reaction label 8: n + (S33\_c -> S33 + gamma) / Product: S33\_c / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (3710120.0 -> 20000000.0) vs (3710130.0 -> 20000000.0)

3. Energy range of data set does not match cross section range  
*reaction label 8: n + (S33\_c -> S33 + gamma) / Product: S33\_c / uncorrelated - energy - XYs2d: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (3710120.0 -> 20000000.0) vs (3710130.0 -> 20000000.0)

4. Calculated and tabulated Q values disagree.  
*reaction label 9: n[multiplicity:'2'] + S32 + gamma (Error # 0): Q mismatch*

WARNING: Calculated and tabulated Q-values disagree: -9034450.858505249 eV vs -8643380. eV!

5. Calculated and tabulated Q values disagree.  
*reaction label 10: n + H1 + P32 + gamma (Error # 0): Q mismatch*

WARNING: Calculated and tabulated Q-values disagree: -9962583.450870514 eV vs -9571010. eV!

6. Calculated and tabulated Q values disagree.  
*reaction label 11: S34 + gamma (Error # 0): Q mismatch*

WARNING: Calculated and tabulated Q-values disagree: 11024275.32888031 eV vs 1.1417e7 eV!

7. Calculated and tabulated Q values disagree.  
*reaction label 12: n + He4 + Si29 + gamma (Error # 0): Q mismatch*

WARNING: Calculated and tabulated Q-values disagree: -7508700.319717407 eV vs -7117630. eV!

8. Energy range of data set does not match cross section range  
*reaction label 12: n + He4 + Si29 + gamma / Product: gamma / Distribution: / un-*  
*correlated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (7335390.0 -> 20000000.0) vs (7335380.0 -> 20000000.0)

9. Energy range of data set does not match cross section range  
*reaction label 12: n + He4 + Si29 + gamma / Product: gamma / uncorrelated - energy*  
*- XYs2d: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (7335390.0 -> 20000000.0) vs (7335380.0 -> 20000000.0)

10. Calculated and tabulated Q values disagree.  
*reaction label 13: H1 + (P33-s ->P33 + gamma) (Error # 0): Q mismatch*

WARNING: Calculated and tabulated Q-values disagree: 141003.4172210693 eV vs 533469. eV!

11. Calculated and tabulated Q values disagree.  
*reaction label 14: He4 + (Si30-s ->Si30 + gamma) (Error # 0): Q mismatch*

WARNING: Calculated and tabulated Q-values disagree: 3100499.654087067 eV vs 3492040. eV!

• njoy2012 Warnings:

1. Evaluation has no unresolved resonance parameters given  
*unresr...calculation of unresolved resonance cross sections (0): No URR*

---message from unresr---mat 1628 has no unresolved parameters  
copy as is to nout

2. Evaluation has no unresolved resonance parameters given  
*purrr...probabalistic unresolved calculation (0): No URR*

---message from purrr---mat 1628 has no unresolved parameters  
copy as is to nout

3. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!  
*groupr...compute self-shielded group-averaged cross-sections (0): GROUPR/conver (0)*

---message from conver---cannot do complete particle production for mt= 16  
only mf4/mf5 provided

4. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!  
*group...compute self-shielded group-averaged cross-sections (1): GROUPR/conver (0)*

---message from conver---cannot do complete particle production for mt= 22  
only mf4/mf5 provided

5. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!  
*group...compute self-shielded group-averaged cross-sections (2): GROUPR/conver (0)*

---message from conver---cannot do complete particle production for mt= 28  
only mf4/mf5 provided

6. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!  
*group...compute self-shielded group-averaged cross-sections (3): GROUPR/conver (0)*

---message from conver---cannot do complete particle production for mt= 91  
only mf4/mf5 provided